

Notice of Allowability	Application No.	Applicant(s)	
	09/828,837	AOTA ET AL.	
	Examiner	Art Unit	
	Catherine Simone	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 11/16/04.
2. ☒ The allowed claim(s) is/are 17,18,20-24, 26-34 and 39-54.
3. ☒ The drawings filed on 10 April 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/025,070.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
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EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with William Solomon on 2/3/05.

The application has been amended as follows:

Claim 24, line 28, after "carried out", delete "." and insert ---wherein a triangular-shaped groove is formed between an outer surface of said thickened part of said extruded frame member and an outer surface of said extended part of said extruded frame member; and the friction stir welding is carried out through said triangular-shaped groove.---

Claim 30, line 31, after "carried out", delete "." and insert ---wherein a triangular-shaped groove is formed between an outer surface of said thickened part of said extruded frame member and an outer surface of said extended part of said extruded frame member; and the friction stir welding is carried out through said triangular-shaped groove.---

Claim 53, line 31, after "carried out", delete "." and insert ---wherein a triangular-shaped groove is formed between an outer surface of said thickened part of said extruded frame member and an outer surface of said extended part of said extruded frame member; and the friction stir welding is carried out through said triangular-shaped groove.---

Claim 54, line 35, after "carried out", delete "." and insert ---wherein a triangular-shaped groove is formed between an outer surface of said thickened part of said extruded frame member and an outer surface of said extended part of said extruded frame member; and the friction stir welding is carried out through said triangular-shaped groove.---

Cancel claim 25.

In the Specification, page 1, line 2, after "filed April 11, 2000," insert ---now U.S. Patent No. 6,237,829,---

In the Specification, page 1, line 4, after "filed February 17, 1998," insert ---now U.S. Patent No. 6,050,474,---

Please delete Abstract and insert this --- The friction stir welding technique disclosed avoids occurrence of a dent in adjoining region extending to a level beneath the joined surfaces. At end portions of the frame members to be joined, thickened parts, which project toward the rotary body joining tool, are provided. The two adjoining thickened parts form a trapezoid shape. The rotary body joining tool has a small-diameter tip portion and a larger diameter portion, and is inserted in the thickened parts. When the rotary body joining tool has been inserted small-diameter tip end first to a level where the larger diameter portion of the rotary body joining tool overlaps the thickened part, the rotary body is rotated and moved along the joining region. Even when a gap exists between two thickened parts, a desirable joining can be carried out. After the joining, the remaining parts of the thickened parts can be machined to form a smooth surface.---

Reasons for Allowance

The following is an examiner's statement of reasons for allowance: The closest prior art of record fails to teach or suggest the recited extruded frame member for use in a friction stir welding. Independent claims 24, 30, 53 and 54 identify the uniquely distinct feature of "a triangular-shaped groove is formed between an outer surface of said thickened part of said extruded frame member and an outer surface of said extended part of said extruded frame member; and the friction stir welding is carried out through said triangular-shaped groove." The closest prior art of record, Aota et al. (EP 0 797 043 A2), discloses an extruded frame member for use in friction stir welding, which either singularly or in combination, fail to anticipate or render obvious the above limitations.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Simone whose telephone number is (571)272-1501. The examiner can normally be reached on 9:30-6:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Catherine A. Simone
Examiner
Art Unit 1772
February 3, 2005



HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

2/4/05